

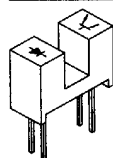
Transmissive Assembly, Wide Slot **Assemblies****HOA1886 SERIES**

The HOA1886 Series of interruptive sensors have a GaAs infrared emitting diode and a silicon photosensor in an opaque plastic housing with an IR transmissive insert which forms the optical windows. This provides excellent protection against ambient light, and eliminates aperture openings which could be clogged by airborne contaminants. The slot is 0.200" wide for applications requiring wider slots than the standard .125". The aperture windows on both optical faces are .050" wide.

The output device is a phototransistor in HOA1886-11 and HOA1886-12, and a photodarlington in HOA1886-13, providing three sensitivity ranges.

ELECTRICAL CHARACTERISTICS (@ 25°C unless otherwise specified)

Parameter	Test Conditions	Sym.	Min.	Max.	Units
IRED					
Forward Voltage	$I_F = 20 \text{ mA}$	V_F	—	1.5	V
Reverse Leakage Current	$V_R = 3.0 \text{ V}$	I_R	—	10	μA
PHOTOSENSOR					
Breakdown Voltage, C to E		BV_{CEO}			
HOA1886-11	$I_C = 100 \mu\text{A}$		30	—	V
HOA1886-12			30	—	V
HOA1886-13			15	—	V
Breakdown Voltage, E to C		BV_{ECO}			
HOA1886-11	$I_E = 100 \mu\text{A}$		5	—	V
HOA1886-12			5	—	V
HOA1886-13			5	—	V
Dark Current		I_{CEO}			
HOA1886-11	$V_{CE} = 10 \text{ V},$		—	100	nA
HOA1886-12	$I_F = 0$		—	100	nA
HOA1886-13			—	250	nA
COUPLED					
On-state Collector Current		$I_{C(ON)}$			
HOA1886-11	$V_{CE} = 5 \text{ V},$		0.3	—	mA
HOA1886-12	$I_F = 20 \text{ mA}$		1.8	—	mA
HOA1886-13			4.0	—	mA
Saturation Voltage	$I_F = 20 \text{ mA}$	$V_{CE(SAT)}$			
HOA1886-11	$I_C = 0.04 \text{ mA}$		—	0.4	V
HOA1886-12	$I_C = 0.23 \text{ mA}$		—	0.4	V
HOA1886-13	$I_C = 0.50 \text{ mA}$		—	1.1	V

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Catalog Listing	Description
HOA1886-11	0.3 mA minimum current, phototransistor
HOA1886-12	1.8 mA minimum current, phototransistor
HOA1886-13	4.0 mA minimum current, photodarlington